CLAIMS

What is claimed is:

1. A flush mounted latch assembly comprising:

a. a latch housing having first and second chambers and a recessed portion between said first and second chambers,

b. a push button unit at least partially housed in said second chamber, said push button unit having one or more handle retention members on its surface,

c. a compression spring housed in said second chamber biasing said push button unit in an upward direction,

d. a camming surface formed in said first chamber,

e. a retainer unit at least partially housed in said first chamber,

f. a shaft partially contained within said first chamber,

g. a cross pin engaged with said retainer unit and said shaft,

h. a second compression spring housed in said retainer unit urging said cross pin against said camming surface, and

i. a handle pivotally connected to said retainer unit,

wherein said handle is at least partially contained within said recessed portion and held in place by at least one of said one or more handle retention members when said handle is in a closed position, and wherein said handle is capable of rotating said retainer unit when said handle is in an extended position.

2. A flush mounted latch assembly according to claim 1 further comprising a torsion spring between said retainer unit and said handle for urging said handle to said extended position.

3. A flush mounted latch assembly according to claim 1 wherein said push button unit is rotatable.

4. A flush mounted latch assembly according to claim 3 wherein said push button unit is operated by a specially designed key.

5. A flush mounted latch assembly according to claim 3 wherein at least one of said one or more handle retention members is depressible and at least one of said one or more handle retention members is not depressible.

6. A flush mounted latch assembly according to claim 5 wherein the handle further comprises an engagement surface having a ridge that engages with said at least one handle retention member that is not depressible when the push button unit is rotated to a first orientation and that engages with said at least one handle retention member that is depressible when the push button unit is rotated to a second orientation.

7. A flush mounted latch assembly according to claim 6 wherein said at least one handle retention member that is depressible may be depressed when it encounters the

force imposed upon it by said ridge when said push button unit is pressed during operation.

8. A flush mounted latch assembly according to claim 1 wherein said camming surface is shaped so that said shaft is drawn in an upward direction when said handle is rotated to said closed position.

9. A latch assembly comprising:

a latch housing having first and second chambers and a recess between said first and second chambers,

a retainer unit at least partially housed in said first chamber,

a camming surface and one or more cam followers intermediate said first chamber and said retainer unit,

a first compression spring housed in said retainer unit biasing said cam followers against said camming surface,

a shaft slidably connected to said retainer unit and fixed to said one or more cam followers,

a handle pivotally connected to said retainer member and housed at least partially contained within said recess when pivoted to a closed position,

a torsion spring intermediate between said retainer unit and said handle for urging said handle to pivot to an extended position,

a push button unit intermediate between said second chamber and said

handle,

one or more handle retention members intermediate said push button unit and said handle when in the closed position,

an engagement surface intermediate said push button unit and said handle and engaged with said one or more handle retention members when in the closed position, and

a second compression spring housed in said second chamber biasing said push button unit in an upward direction.

10. A latch assembly according to claim 9 wherein at least one of said one or more handle retention members is depressible.

11. A latch assembly according to claim 9 wherein said push button unit may be rotated.

12. A latch assembly according to claim 11 wherein said push button unit is operated by a specially designed key.

13. A latch assembly according to claim 9 further comprising a torsion spring between said retainer unit and said handle for urging said handle to said extended position.

14. A flush mounted latch assembly according to claim 11 wherein at least one of said one or more handle retention members is depressible and at least one of said one or more handle retention members is not depressible.

15. A flush mounted latch assembly according to claim 14 wherein the handle further comprises an engagement surface having a ridge that engages with said at least one handle retention member that is not depressible when the push button unit is rotated to a first orientation and that engages with said at least one handle retention member that is depressible when the push button unit is rotated to a second orientation.

16. A flush mounted latch assembly according to claim 15 wherein said at least one handle retention member that is depressible may be depressed when it encounters the force imposed upon it by said ridge when said push button unit is pressed during operation.

17. A flush mounted latch assembly according to claim 9 wherein said camming surface is shaped so that said shaft is drawn in an upward direction when said handle is rotated to said closed position.

18. A latch assembly comprising:

a latch housing having first and second chambers and a recessed portion between said first and second chambers,

a retainer unit at least partially housed in said first chamber,

a handle pivotally connected to said retainer member and housed at least partially inside said recess when pivoted to a closed position,

a push button unit intermediate between said second chamber and said handle,

one or more handle retention members intermediate said push button unit and said handle when in the closed position,

an engagement surface intermediate said push button unit and said handle and engaged with said one or more handle retention members when in the closed position, and

a compression spring housed in said second chamber biasing said push button unit in an upward direction.

19. A latch assembly according to claim 18 further comprising a camming surface formed in said first chamber, a pair of cam followers connected to a shaft partially housed in said first chamber, and a second compression spring housed in said retainer unit biasing said cam followers against said camming surface.

20. A latch assembly according to claim 18 wherein at least one of said one or more handle retention members is depressible.

21. A latch assembly according to claim 18 wherein said push button unit may be

rotated.

22. A latch assembly according to claim 21 wherein said push button unit is operated by a specially designed key.

23. A latch assembly according to claim 18 further comprising a torsion spring between said retainer unit and said handle for urging said handle in an upward direction.

24. A flush mounted latch assembly according to claim 21 wherein at least one of said one or more handle retention members is depressible and at least one of said one or more handle retention members is not depressible.

25. A flush mounted latch assembly according to claim 24 wherein the handle further comprises an engagement surface having a ridge that engages with said at least one handle retention member that is not depressible when the push button unit is rotated to a first orientation and that engages with said at least one handle retention member that is depressible when the push button unit is rotated to a second orientation.

26. A flush mounted latch assembly according to claim 25 wherein said at least one handle retention member that is depressible may be depressed when it encounters the force imposed upon it by said ridge when said push button unit is pressed during

operation.

27. A flush mounted latch assembly according to claim 19 wherein said camming surface is shaped so that said shaft is drawn in an upward direction when said handle is rotated to said closed position.

28. A latch assembly comprising:

a latch housing having first and second chambers and a recessed portion between said first and second chambers,

a shaft extending from said first chamber,

a retainer unit rotatably housed in said first chamber having an orifice for receiving a pivot member and having a pair of slots for receiving a pair of follower members,

a camming surface formed in said first chamber,

a pair of cam followers connected to said shaft,

a first compression spring housed in said retainer unit biasing said cam followers against said camming surface, and

a handle pivotally connected to said retainer member and housed at least partially inside said recess when pivoted to a closed position.

29. A latch assembly according to claim 28 further comprising:

a push button unit intermediate between said second chamber and said

handle,

one or more handle retention members intermediate said push button unit and said handle when in the closed position,

an engagement surface intermediate said push button unit and said handle and engaged with said one or more handle retention members when in the closed position, and

a compression spring housed in said second chamber biasing said push button unit in an upward direction.

30. A latch assembly according to claim 29 wherein at least one of said one or more handle retention members is depressible.

31. A latch assembly according to claim 29 wherein said push button unit may be rotated.

32. A latch assembly according to claim 31 wherein said push button unit is operated by a specially designed key.

33. A latch assembly according to claim 28 further comprising a torsion spring between said retainer unit and said handle for urging said handle in an upward direction.

34. A flush mounted latch assembly according to claim 31 wherein at least one of said one or more handle retention members is depressible and at least one of said one or more handle retention members is not depressible.

35. A flush mounted latch assembly according to claim 34 wherein the handle further comprises an engagement surface having a ridge that engages with said at least one handle retention member that is not depressible when the push button unit is rotated to a first orientation and that engages with said at least one handle retention member that is depressible when the push button unit is rotated to a second orientation.

36. A flush mounted latch assembly according to claim 35 wherein said at least one handle retention member that is depressible may be depressed when it encounters the force imposed upon it by said ridge when said push button unit is pressed during operation.

37. A flush mounted latch assembly according to claim 28 wherein said camming surface is shaped so that said shaft is drawn in an upward direction when said handle is rotated to said closed position.